

REMARKS

Claims 1-6 are pending. Reconsideration and allowance in view of the following remarks are respectfully requested.

Applicants appreciate the courtesies extended to Applicants' representative during the January 30, 2008 telephone discussion. The substance of the discussion is incorporated into the amendments and remarks herein and constitutes Applicants' record of the discussion.

Claims 1-5 were rejected under 35 U.S.C. §103(a) over Kelly et al. (U.S. Patent 4,255,777) in view of Parmentar et al. (U.S. Patent 4,664,315). This rejection is respectfully traversed.

Applicants appreciate the indication that claims 2-4 contain allowable subject matter.

Applicants' claim 1 recites a method for atomizing a liquid medium. The method comprises supplying the liquid medium to an internal volume of a conductive nozzle body under pressure, wherein the conductive nozzle body is put on ground potential, and applying a pulsed voltage to an electrode, the pulsed voltage bringing about an electrostatic charging of the liquid medium in a magnitude that results in bursting of drops discharged from a nozzle opening due to the electrostatic charge.

The Kelly patent discloses an electrostatic atomizing device including a cylindrically shaped non-conductive housing 12 formed of, for example, Lucite. A first electrode 38 is connected in series to a high voltage source 40. A second electrode 64 is disposed transversely and spaced apart from the first electrode 38.

The Parmentar patent discloses an electrostatic spray nozzle including an electrostatic nozzle assembly 10 having a nozzle body 12 formed of a dielectric

material. Mounted at the base of the nozzle body 12 is an air nozzle 28 also formed of dielectric material. The nozzle body 12 includes a yoke 14 at its upper end which receives a mounting bracket 16 connected by a pin 18. The bracket 16 is grounded.

Neither of the Kelly or Parmentar patents, alone or in combination, discloses nor suggests a conductive nozzle body as in Applicants' independent claim 1. Such a feature encompasses Applicants' embodiment as illustrated in Fig. 2 wherein an electrically conductive nozzle body 1 is placed at ground potential to, for example, generate an adequately sized electrical field between the high voltage electrode and nozzle body in the area of the nozzle opening. Claim 1 is therefore allowable.

The remaining dependent claims are allowable for at least the reasons discussed above as well as for the individual features they recite. For example, new dependent claim 6 recites wherein applying the pulse voltage creates an electric field $U > 10$ kV per mm. Neither the Kelly patent nor the Parmentar patent, alone or in combination, disclose this feature.

Reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) over the Kelly patent in view of the Parmentar patent are respectfully requested.

Early and favorable action with respect to this application is respectfully requested.

Should the Examiner believe that anything further is necessary to place the application in condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: February 5, 2008

By:



Patrick C. Keane
Registration No. 32,858

Michael Britton
Registration No. 47,260

P.O. Box 1404
Alexandria, VA 22313-1404
703 836 6620